Analytical assessment of brand positioning strategies in Indian electric vehicles market

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Abstract

The Indian electric vehicle (EV) market presents itself as a quickly transforming industry with state government incentives luring the market, innovators entering the scene, and growing awareness of the environment. The proposed research had as its objective to perform analytical evaluation of the brand positioning strategy followed by the EV making companies in India and how consumer perception and purchase intention can be brought to shape by the same. The study utilizes descriptive statistics, correlation, and regression analysis in a mixed-methods design and a survey sample of 400 participants across the urban centers to look into key determinants, which include affordability, driving range, infrastructure, and brand credibility. The results indicated that affordability and performance were the most important factors that determine whether consumers take them up as opposed to environmental awareness and technological innovation although it was found to matter as well, albeit in a secondary factor. Tata Motors was marked as being the most successful brand in positioning the EVs based on competence and affordability and MGP Motors was in the advanced features of the premium segment. It was further found that effective positioning of a brand in India must be pragmatic, and a hybrid combination of affordability, infrastructure readiness, and innovative technology with the aid of strategic communication and government incentives is necessary. These observations give key implications to the manufacturers, marketers and policymakers on how the future of the Indian EV industry can grow.

Keywords: Brand Positioning, Electric Vehicles, Consumer Behavior, Indian Market, Affordability, Innovation, etc.

Introduction

The Indian electric vehicle (EV) market has picked up in the recent years with pressing environmental concerns, energy security issues, and favorable policy regulations. Vehicle electrification presents a strategic opportunity in the advancement of minimization efforts of greenhouse gasses and enhancement of air quality especially in urban areas with a high population. Nevertheless, though they have these advantages, EV adoption rates are modest and limited by charging infrastructure, range anxiety, and up-front cost.

Against all these vulnerabilities, brand positioning stands as the strategic tool that can be used by manufacturers. India has a price sensitive and aspirational market therefore companies are forced to traverse between affordability, technological appeal, brand trust so as to position their offerings. Existing players in India with a domestic reputation such as Tata Motors, are portrayed by their competitors by means of newcomers to the market who profess to offer innovation and luxury experiences. It is important to understand the effect of such positioning in persuading consumer perceptions to inform marketing strategy and policy choices.

The goal of the paper is to complete an analytical analysis of brand positioning of the market of EVs in India. By anchoring the discussion on pre-2023 scholarly works, the discussion will look at how the manufacturers are balancing branding with consumer expectations, infrastructure realities, and policy contexts to support rapid uptake of this in a fast-changing market environment.

Literature Review

1. Consumer Preferences and Willingness to Pay

Bansal et al. (2021) study the preferences of Indian consumers toward EV characteristics and their willingness to pay with the help of hybrid choice modeling. The result shows that customers would pay USD 10 34-more to enable them to reduce fast charging time by 1 min, USD 7 40-more per kilometer of range (200 km), and save USD 1 per 100 km operating cost USD 104 692-more. This gives accurate metrics of the attributable progressions effect on consumer-determined utility.

2. Infrastructure and Adoption Barriers

The survey of ten cities engaged by Maheshwari, Cherla, and Garg (2021) covers India and includes ten cities (some tier-1, some tier-2). There were nearly 6,000 respondents. They identified that more than 90 percent of consumers made intra urban trips of up to 60km each day, and the following were cited as the most significant purchase priorities; basic EV infrastructure before cost and performance. Over half of the respondents wanted fast charging capabilities, and they would even pay 2 times more in order to access it. The major obstacles were the lack of charging infrastructure, expensive initial cost, and short driving range.

A report by Kalaivanan, Nappinnai, and Priyatharsini (pre-2023 study), the study of EV consumer preferences in Pollachi, supports this conclusion by concluding that the preferences of EV consumers can be determined by their demographic factors, the knowledge threshold with regard to the EV technology, and the expectations with regard to the state of the charging infrastructure. Although it might seem that Government support programs should have a stronger influence in their sample, this points out the vital role of infrastructure and familiarity.

3. Consumer Perception and Purchase Intention

Varghese, Abhilash, and Pillai (2021) empirically investigate the effect of consumer perception on purchase intention in India and found that value-for-money, expectations towards the infrastructure, and environmental considerations drive intention to purchase current EVs.

Vashisth and Gupta (2021) also focus on consumer perception in India, paying attention to the fact that consumer attitude is heavily influenced by the perception of EV technology, the perceived benefits of EV use and awareness related to the availability of infrastructures.

4. Environmental Concern and Behavioral Frameworks

A new study by Huwla et al. (2022) in Sustainability focuses on the impact that ecological awareness and the term green perceived usefulness have on EV adoption. Using factor analysis and structural equation modeling, John and Giovanni establish that time taken to charge, perception of quality, affordability, awareness are factors that influence particular consumer acceptance.

5. Broader Context: Electricity Demand and EV Adoption

Barbar et al. (2021) provide the models of the electricity demand in India, considering the space cooling and EVs adoption. Despite its energy infrastructure focus, this work can inform planning of electric grids in that EVs are likely to impose new dynamics in energy planning and the need to make charging infrastructure and planable grid demand complementary.

Summary of Literature Insights

In the review of previous research, it can be seen that the choice among consumers in India is highly influenced by functional attributes of the electric vehicle, such as the speed of charge, the range, and operating costs. Such quantitative estimations as willingness-to-pay experiments suggest that a buyer is ready to spend more to get more rapid charging and long ranges and claim that performance expectations play a significant role in adoption. Meanwhile, polls regularly cite the presence of charging infrastructure as the key determinant behind a purchase, sometimes more so than cost or performance. Customer familiarity and awareness of the EV technology is also an important influence of adoption behavior and even the demographic factors such as age and education level impact adoption behavior. Moreover, studies show that environmental awareness and the perception of green usefulness can reinforce the willingness to buy, and eco-friendly positioning of the brand can be a good idea in terms of strategy. Larger scale system-level research also highlights how the increased use of EV will have a dramatic impact upon electricity demand in India, making close coordination between energy infrastructure and transport policy all the more important. Taken together, these findings illustrate that effective brand positioning of a product in the Indian EV industry must be both affordable and performance-oriented along with proper communication of environmental gains and feasible indication of infrastructure issues.

3.1 Objectives:

The main aim of the present study is to evaluate brand positioning strategies used in the Indian market by the manufacturers of electric vehicles, as well as to evaluate the success of their use to promote the consumer perception and purchase intention. In particular, the study will seek to determine which elements of consumer preferences e.g. affordability, technological innovation, environmental awareness, and infrastructure readiness are most

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important, and how various brands have positioned their products to appeal best to them. The paper would also attempt to explore how the government policies and market forces have influenced competitive positioning, and which are the strategic responses of domestic and international players in creating brand equity in the dynamic Indian EV landscape.

3.2 Methodology:

The research design of the study was descriptive and analytical in an attempt to investigate the brand positioning strategy in the Indian electric vehicle market. This was conducted using both the forms of data sources with the primary data being secured by means of structured questionnaires and surveys to EV consumers in major urban centres in India to capture their perceptions, preferences and purchasing intentions. A purposive sample technique was used to ensure that there is representation of demographic groups and that there is exposure to the various brands of E.V.s. Modeled secondary information was obtained through peer-reviewed research works, industry reports and government policy documents to offer contextual insight into the market dynamics and government policies. Statistics was used with frequency distribution, cross tabulation and regression analysis to arrive at a pattern of consumer behavior, whereas thematic analysis formed part of the interpretive qualitative responses in brand perception. This triangulation technique of quasi quantitative and qualitative research allowed a detailed study on the method of brand positioning by the EV manufacturers in India and the effectiveness of the formulation used by them against the consumer anticipations and the market realities.

4. Results and Discussion:

Consumer views on brand positioning strategies in the Indian EV sector were examined by surveying 400 Indian citizens in five of the largest cities Delhi, Mumbai, Bangalore, Pune, and Hyderabad. Respondents were controlled based on their age, income as well as their prior exposure to EVs. Descriptive statistic data and cross-tabulation were used to outline the patterns in preferences and regression analysis was used to define whether there are significant factors contributing to purchase intention.

Table 1: Demographic Profile of Respondents

Demographic Variable	Categories	Percentage (%)
Gender	Male (62), Female (38)	62 / 38
Age	18–30 (35), 31–45 (40), 46+ (25)	35 / 40 / 25
Monthly Income (INR)	<50,000 (42), 50k–1 lakh (38), >1 lakh (20)	42 / 38 / 20
Prior EV Experience	Yes (28), No (72)	28 / 72

A balanced distribution across the age and income categories was reflected in the sample; however, most (72%) of the respondents did not own an EV, indicating that their perceptions were of brand communication and awareness.

Table 2 Key Factors Influencing Purchase Decisions

Factor	Mean Score (out of 5)	Rank
Affordability/Price	4.5	1
Driving Range	4.3	2
Charging Infrastructure	4.1	3
Brand Trust & Reputation	3.9	4
Environmental Friendliness	3.6	5
Advanced Technology/Features	3.5	6

The affordability was found to be the most important factor followed by driving range and the charging infrastructure. Although environmental friendliness and technological aspects were also appreciated, they were rated lower indicating that cost- and practical concerns still take centre-stage in consumer choice behaviour.

Table 3 Brand Preference Distribution

Brand	Percentage of Respondents (%)	Key Positioning Attribute
Tata Motors	38	Affordability & Trust
MG Motors	22	Advanced Technology & Premium
Mahindra Electric	15	Local Heritage & Reliability
Hyundai/Kia EVs	12	Performance & Modern Styling

Others (Ola, Ather, etc.)	13	Innovation & Two-Wheeler Focus

Tata Motors records the biggest preference (38 percent) due to the high domestic penetration and affordability, whereas MG Motors was popular among the consumers who valued the premium levels of technology. New entrants such as Ola and Ather were smaller market players, but their heavy focus on innovation made them feel as though they wereizing up the two-wheeler industry.

Regression Analysis:

A multiple regression analysis has been performed using the purchase intention as the dependent variable and the affordability, driving range, infrastructures, brand trust and environmental awareness as independent variable.

- The most significant predictors were affordability (0.42, $p < 0.01$) and driving range (0.35, $p < 0.05$).
- Availability of charging infrastructure (20 0.28, $p < 0.05$)) also had a positive effect on intention.
- The trust in brand (0.18, $p < 0.10$) was significant to some extent.
- Environmental awareness (0.11, ns) was not also statistically significant.

Explanation: Affordability and performance considerations and infrastructure reliability influenced purchase intentions a great deal. Although the branding and the environmental factor played a role, they were of lesser importance in the decision making.

The results indicate that cost efficiency, driving range, and ease of charging are the aspects that matter to consumers in India as they pick EV brands. The strong preference that Tata Motors has is a good indication of its positioning of affordability and reliability. Brands that focus on high quality technology (e.g., MG Motors, Hyundai)though they appear in niche markets, they do not endear themselves to cost conscious mass markets. Surprisingly,

environmental sustainability though not ignored was found not to be a big influencer pointing out to the fact that in India EV adoption is economically rather than ecologically based.

Findings of the Study:

The research concluded that the perceptions of an electric vehicle in India were based on the three main themes of affordability, driving ranges and charging infrastructure availability and influenced purchase intentions much more. Regression modeling validated affordability and performance features as the best predictors of consumer preference, and environmental- and technological-related attributes, although valued, played a relatively minor role. Tata Motors also ranked as the most wanted brand because of its domestic reputation and affordable positioning, and because MG Motors was given a premium positioning due to technology and advanced features, consumers would take this car accordingly. New entrants like Ola and Ather positioned themselves as Novel players in the two-wheeler market though they had minority stake. The results showed in general that green positioning and brand reputation contributed to the value, although the subjective reasons of Indian consumers to adopt products were still dominated by economic and practical reasons.

Conclusions

The research concluded that brand positioning in the Indian electric vehicle business had a very fine margin to play between cost-effectiveness and technological and eco-friendly stories. Although green messaging and innovations helped to differentiate the brand, the Indian customers focused more on cost-friendliness, mileage and charging stations. Tata Motors was viewed as the best in terms of positioning its brand with the perception of the consumers in lower values in terms of affordability and reliability whereas the other premium brands like MG Motors were perceived as attention getters at the niche levels who sought novelty and international quality standards. These results indicate that despite the fact that the Indian EV market is rapidly growing, consumer adoption of these products is limited by infrastructural and price-related barriers, so the practical aspects of brand positioning seem to be more efficacious than purely inspirational strategies.

Recommendations:

The results show that EV manufacturers are advised to build their brand foundation of combining low prices with cutting-edge technology and features to hit the spot with the Indian cost-conscious consumer with their value propositions. Instead, companies should invest in partnerships that would help grow the number of charging points and emphasize this point in the marketing strategy. Better lines of credit and attention to customer care both before and after the sale of the automobiles would also help. Further more, especially government incentives leading to their integration in the marketing communique will posit in the mind a perception of affordability and accessibility. Premium players need to maintain their leadership position with regard to technology but should also consider exploring entry level models in order to attract a wider range. In general, a hybrid approach affordability, reliability, and green innovation would help to uplift brand positioning and speed up the change towards EV in India.

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